ABSTRACT OF DISCLOSURE

A host system is provided with a shared resource (such as work queues and completion queues); multiple processors arranged to access the shared resource; and an operating system arranged to allow multiple processors to perform work on the shared resource concurrently while supporting updates of the shared resource. Such an operating system may comprise a synchronization algorithm for synchronizing multiple threads of operation with a single thread so as to achieve mutual exclusion between multiple threads performing work on the shared resource and a single thread updating or changing the state of the shared resource without requiring serialization of all threads

31